혈관운동성비염의 임상적 특징과 국소 Ipratropium Bromide의 치료 효과

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Vasomotor Rhinitis: Clinical Characteristics and Efficacy of **Intranasal Ipratropium Bromide**

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-ABSTRACT -

Background and Objectives: Vasomotor rhinitis (VMR) has similar symptoms compared to the allergic rhinitis (AR). Many doctors still use the same AR medicine without exact diagnosis, even if the patient has VMR. The aims of this study are clinical feature of VMR and efficacy of intranasal ipratropium bromide. Materials and Method: The study was designed prospectively. The subjects consisted of 38 patients with VMR who had been treated between 2003 and 2004. Diagnostic criteria include rhinitis symptoms lasting more than 3 months, no eosinophilia in nasal smear test, and negative results for MAST and allergic skin test. The patients were treated with intranasal ipratropium bromide for 4 weeks and compared pre-treatment and post-treatment symptom scores. Results: Chief complaints of the patients was nasal obstruction, followed by rhinorrhea, sneezing, and itching. After treatment, the average symptom score of rhinorrhea was significantly improved from 1.5 to 0.5 (p<0.05) and 21 patients (84%) general symptom score was decreased. Conclusion: Ipratropium bromide is useful medicine for treatment of VMR, especially to control of rhinorrhea. (J. Clinical Otolaryngol 2005;16:235-239)

KEY WORDS: Vasomotor rhinitis · Ipratropium bromide.

М 론 가 (vasomotor rhinitis, VMR) 가가 , ipratropium bromide : 2005 9 : 2005 10 가 , 134 - 701 445 ipratropium bromide : (02) 2224 - 2279 -: (02) 482 - 2279

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Table 1. Scoring criteria of nasal symptoms in questionnaire

Symptom score	0	1	2	3
Nasal obstruction	None	Intermittent	Frequent	Continue
Rhinorrhea (blow per day)	0	1 - 10	11 - 20	>20
Sneezing (number per day)	0	1 - 5	6 - 10	>10
Itching	None	Mild	Moderate	Severe
Posterior nasal drip	None	Intermittent	Frequent	Continue
Headache	None	Mild	Moderate	Severe

재료 및 방법

3 2003 3 2004 6 38 가 15 , 가 23 14 80 40.7 40 가 17 (45%) , 20 39 가 11 (29%), 60 6 가 4 (11%)

MAST(multiple antigen

(16%), 19

simultaneous test, Hitachi Chemical Diagnostic, USA)

Table 2. Age distribution at diagnosis and onset of VMR

Age (year)	Number of patient (%)		
Age (year)	Onset	Diagnosis	
0 - 19	7 (18%)	4 (11%)	
20 - 39	10 (26%)	11 (29%)	
40 - 59	17 (45%)	17 (45%)	
60 - 79	4 (11%)	6 (15%)	
Total	38	38	

5

Rhinovent®(ipratro-

42.4

가 17 (45%)

40

pium bromide, Hanlim Pharm. Co., Korea) 4

ipratropium bromide 1) 3 1 2 , 2) 10% , 3) MAST ipratropium bromide , 4) paired t-test .3) 0.05 , p

걜 과

59

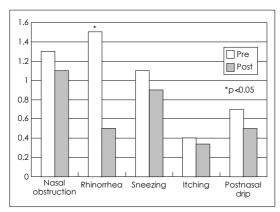
(Table 2). 0 3 가 (Table 1). (45%) 가

Ipratropium Bromide

Table 3. Clinical symptoms

Symptoms	Nun

Symptoms	Number of patients (%)
Rhinorrhea	26 (68%)
Nasal obstruction	23 (60%)
Sneezing	19 (40%)
Posterior nasal drip	12 (32%)
Itching	10 (26%)
Headache	5 (13%)
Asthma	4 (11%)
Olfactory disturbance	3 (7%)



 $\textbf{Fig. 1.} \ \textit{Mean symptom scores before and after treatment}.$

가 6 (14%) .

기 (p> 0.05). 가 , 16 (42%) .

1.1

4 ipratropium bromide

1.3

1.5 0.5 , 1.1 0.9 (p<0.05).

7 0.7 0.4
0.4 0.14
(p>0.05)(Fig. 1).

가 11 (29%), 가 가 6 (16%) . 가 19 (59%) 가 , 가 7 (22%), 가 6 (19%) (78%)

고 찰

가

. 17~30% ,⁴⁾ 61% .⁵⁾
Lindberg ⁶⁾ 31 , Park ⁷⁾

40 . 가 42.4 10

가 ,

,

70

tropium bromide 2) 가 가 1950 , Jaradeh 결 론 Loehrl MAST **RAST** 가 lg E in vitro ipratropium bromide 가 84% 2) , ipratropium bromide , cromoglycate 2) 가 가 budesonide, clomethasone, 중심 단어: · Ipratropium bromide. fluticasone, momentasone REFERENCES 1) Mikaelian AJ. Vasomotor rhinitis. Ear Nose Throat J 1989; 11)12) 68:207-10, 213-8. 2) LaI D, Corey JP. Vasomotor rhinitis update. Curr Opin Otoazelastine levocabastine laryngol Head Neck Surg 2004;12:243-7. H - 1 3) Lee BJ, Lee SH, Kim JH, Kim YJ, Park HJ. Eosinophilic nonallergic rhinitis: Clinical characterictics and efficacy of 가 nasal steroids. Korean J Otolaryngol 2002;45:1162-6. 4) Settipane RA, Philip L. Update on nonallergic rhinitis. Ann Allergy Asthma Immunol 2001;86:494-508. Settipane GA, Klein DE. Nonallergic rhinitis: demography of eosinophils in nasal smear, blood total eosinophil counts and Ig E levels. N Engl Reg Allergy Proc 1985;6:363-6. ipratropium bromide 1973 6) Linderg S, Malm L. Comparison of Allergic Rhinitis and Vasomotor Rhinitis Patient on the basis of a Computer Questionnaire. Allergy 1993;48:602-7. 13) 7) Park JH, Kim JH, Kim YJ, Lee BJ. Subgroups of chronic noninfectious rhinitis: Incidence according to ages. Korean J Otolaryngol 1999;42 (Suppl 1):143. 13) 가 가 Kimmenlman CP, Ali GA. Vasomotor Rhinitis. Otolaryngol Clin North Am 1986;19:65-71. Jaradeh SS, Smith TL, Torrico L, Prieto TE, Loehrl TA, Darling RJ, et al. Autonomic nervous system evaluation of (vidian neurectomy), patients with vasomotor rhinitis. Laryngoscope 2000;110: 1828-31. (sphenopalatine ganglion block), 10) Loehrl TA, Smith TL, Darling RJ, Torrico L, Prieto TE, Shaker R, et al. Autonomic dysfunction, vasomotor rhinitis and extraesophageal manifestations of gastroesophageal re-14) , Banov flux. Otolayngol Head Neck Surg 2002;119:382-7. 11) Wight RG, Jones AS, Beckingham E. A double blind com-73% parison of intranasal budesonide 400 micrograms and 800 ipra-

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